

REMARKS

Reconsideration of the Office Action of August 22, 2007 is respectfully requested.

Claims 1-44 are pending in this application. Claims 3, 4, 7-16, 19, 20, 23-32, 35, 38 and 40-44 are withdrawn from consideration. Claims 17, 18, 21, 22, 36 and 37 are allowed, claims 1, 5, 33 and 39 were rejected. Claims 2, 6 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

To summarize the claim changes made in this Amendment, claims 1, 5-10, 21-26 and 39-41 have been amended to remove some minor informalities as in extraneous semi-colons. As seen, the claim revisions made do not in any way alter the scope of those claims, and no new matter is considered to be introduced by these amendments.

Also, the specification amendments address a few noted typographical errors.

Claim Objections

Claim 1 is objected to because of a grammatical informality. This informality has been addressed by way of a claim 1 amendment wherein “an clutch unit” is replaced with “a clutch unit” on the basis of the Examiner’s instruction.

Claim Rejections - 35 U.S.C. §103

Claims 1, 5, 33 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al (U.S. Patent No. 5,090,510) in view of Slicker (U.S. Patent No. 5,439,428).

Applicants respectfully submit that the cited documents fail to disclose or suggest configuring a switching function by using at least a polarity related to an integral term of the deviation and applying a sliding mode control, the features of independent claims 1 and 33 (from which claims 5 and 39 depend).

In the prior art rejection of claims 1 and 33 it was noted that “Watanabe fails to specifically disclose configuring a switching function by using at least a polarity related to an

integral term of the deviation and applying a sliding model control.” In an effort to remedy this deficiency in Watanabe et al. there is further set forth in the Office Action that Slicker discloses configuring a switching function by using at least a polarity related to an integral term of the deviation and applying a sliding mode control (Column 7, lines 35-33 (**presumed to be 35-54**)).

Applicants respectfully submit that the disclosure of Slicker fails, in combination with the base reference of Watanabe et al., to present a prima facie case of obviousness that is, Slicker (as well as Watanabe) fails to disclose or suggest a switching function that involves using at least a polarity related to an integral term of the deviation and applying a sliding mode control as set forth in independent claims 1 and 33.

For example, the indicated portion of Slicker (Column 7, lines 35-54 and FIG.5) only shows a clutch actuation controller including a PID (proportional-integral-difference) regulator 65. There is no disclosure concerning a switching function that utilizes at least a polarity related to an integral term of the deviation. Though Slicker’s regulator 65 has an integrator 86 which integrates the amplified error signal, this does not disclose or suggest the claim 1 and claim 33 feature of, “configuring a switching function by using at least a polarity related to an integral term of the deviation”. Moreover, there is no disclosure or suggestion in Slicker (or Watanabe) concerning applying a sliding mode control in the context of claims 1 and 33, as Slicker discloses applying PID control to the automatic clutch controller.

Thus, the references of Watanabe and Slicker are respectfully submitted not to disclose or suggest the features of independent claims 1 and 33 of the present invention.

Accordingly, Applicants respectfully submit that independent claims 1 and 33 and their dependent claims are patentably distinguishable over Watanabe et al and Slicker.

As the remainder of the pending claims have been confirmed in the Office Action as presently being allowable, allowance of this application in its entirety is earnestly solicited.

Furthermore, as generic claims 1, 17, 33 and 36 have been shown to be allowable or have been indicated already to be allowable rejoinder of all withdrawn claims is respectfully requested.

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If any fees are due in connection with the filing of this Response, such as fees under 37 C.F.R. §§1.16 or 1.17, please charge the fees to Deposit Account 02-4300; Order No. 032405R157.

Respectfully submitted,

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